

Notice of Allowability

Application No.

10/668,158

Examiner

Callie E. Shosho

Applicant(s)

HORIE ET AL.

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 7/24/06 and telephonic interview conducted 8/11/06.
2. ☒ The allowed claim(s) is/are 1,2,4 and 7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>8/11/06</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) Claim 1, line 9, after "resin," insert "and wherein the coloring agent comprises a pigment".

2. Authorization for this examiner's amendment was given in a telephone interview with Roger Lee on 8/11/06.

Statement of Reasons for Allowance

3. The present claims are allowable over the “closest” prior art Kato (U.S. 6,302,537), Suzuki et al. (U.S. 5,254,425) and Qian et al. (U.S. 2002/0128349) for the following reasons:

Kato discloses method of forming an image by ink jet recording using an oil-based ink comprising discharging the ink from the ink jet printing device wherein the ink comprises non-aqueous dispersion medium and fine particles comprising colorant that is pigment and block polymer, i.e. binder, comprising soluble component block and insoluble component block obtained from monomer containing an aliphatic cyclic hydrocarbon group having, for instance, 5 carbon atoms, wherein the colorant is incorporated into the block polymer. However, there is no disclosure or suggestion in Kato of dispersant for the pigment as now required in all the present claims.

Suzuki et al. disclose method of forming an image from oil-based ink using ink jet system wherein the ink comprises non-aqueous dispersion, dispersant, and colorant, i.e. fine particles, comprising pigment and binder that is graft copolymer obtained from monomer containing aliphatic hydrocarbon group such as cyclohexyl acrylate and macromer that is soluble in the non-aqueous dispersion. However, Suzuki et al. disclose that the fine particles comprise binder that is graft copolymer which is in direct contrast to all the present claims that require binder that is block copolymer.

Qian et al. disclose method of forming an image by ink jet recording using an oil-based ink in an ink jet printer which would inherently discharge ink onto substrate wherein the ink comprises non-aqueous dispersion medium and fine particles comprising pigment and graft copolymer binder obtained from monomer including trimethylcyclohexyl methacrylate and alkyl

(meth)acrylate such as lauryl (meth)acrylate or octadecyl (meth)acrylate. However, Qian et al. disclose that the fine particle comprise binder that is graft copolymer which is in direct contrast to all the present claims that require binder that is block copolymer.

Thus, it is clear that Kato, Suzuki et al., and Qian et al., either alone or in combination, do not disclose or suggest the present invention.

In light of the above, the present claims are passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
8/11/06